

TURFGRASS TRENDS

GOLF AND THE ENVIRONMENT

The Making of Machrihanish Dunes

Architect, head greenkeeper jump environmental hurdles to help create a natural gem in Scotland

By Anthony Pioppi

Just inside the seaside dunes in this speck of a town on the Mull of Kintyre in southwestern Scotland, a golf course has come to life. To say it was "built" is somewhat misleading. It's more as if Machrihanish Dunes Golf Club was unfurled or, perhaps, revealed.

In all likelihood, never has the creation of a golf course ever been attempted on land that came with so many environmental restrictions, and quite possibly no other architect or grow-in superintendent has had to work under such taut constraints as David McLay Kidd and Euan Grant.

Machrihanish Dunes, which has a soft opening this month and opens officially on July 21, is the only course ever built inside a Site of Special Scientific Interest — commonly known as "Triple-SI" — the most restrictive classification of Scottish National Heritage (SNH). It's the organization that protects the flora, fauna and geology of the country, ensuring it can be enjoyed by the inhabitants and tourists. Of the roughly 275 acres on the site, construction of the course disturbed a miniscule seven, not 70, *seven*. Earth was only moved for creation of tees and greens. Fairway bunker placement was determined, not by the architect, but by grassless areas created naturally, in some instances, by the scratching of the native rabbits. The routing was, in essence, determined by SNH and thousands of years of wind and water.

Kidd says he submitted dozens of routings before the current one was accepted. Since that time literally hundreds of alterations have been made. The site, which was used to graze cattle for generations and abuts one of the world's great links courses in Machrihanish Golf Club, contains a plethora of Scottish rarities both geological and floral. Beginning just in from the Atlantic Ocean, the large fore dunes are rich in lime, which is unusual for the west of Scotland. The fore dunes meld into a plain that once ran eight or so miles across Kintyre to Campbeltown on the east coast of the peninsula. Back then, peat bogs would have been found on the site as well. Of what is left of the plain, there are five varieties of orchids and one gentian worthy of protection. The most rare are the Early Marsh orchid and Pyramid orchid found in the low, damp areas of the dunes known as dune slacks. The course was routed away from large patches of the plants so that even wayward shots will not end there.

Head Greenkeeper Euan Grant says he expected restraints in regard to turf

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maintenance at Machrihanish Dunes. “But no way could I envision to what extent they would be,” he adds.

There is no artificial drainage anywhere on the course. Irrigation is only for greens and tees. Grant, who has done two grow-ins, can use no fertilizers, pesticides or plant growth regulators on areas other than greens and tees. No topdressing of fairways is allowed. Overseeding of fairways can only be done with grass varieties that fit the exact natural turf types on the property; so far Grant has found 21 kilos of acceptable seed, all produced in the surrounding area. Other than for the greens, no seed from outside sources will find its way onto the property.

As an example of how truly difficult the project is, Grant explains the construction of the greens. The first step was for the natural turf from each site to be removed with a sod cutter at a thickness that would allow it to be replanted. The thin slivers of grass invariably left by the process had to be saved and reused. The turfgrass was then replanted on site carefully, but not just anywhere.

The turfgrass taken from nearest the dunes had to be put back near the dunes in areas determined by SNH. Turfgrass removed near the mid-point of the course had to go back down in that section as well. Turfgrass was used to cover rabbit holes or other exposed areas.

Two of Grant’s greenkeepers were with him at St. Andrews. Keith Martin, who left the Old Course to work on courses in Hol-

land and Australia, returned to become the first assistant. The head mechanic is Haydn Chambers, who has taken on a variety of jobs besides turning wrenches during the grow-in, including building artificial nesting areas for wheatear, a protected bird species found on the property. There is also the rare skylark, which is globally threatened and nests in rabbit holes, including on the Machrihanish Dunes site.

A large reason SNH approved the project was the willingness of developer Brian Keating to work with SNH. Keating, an Australian entrepreneur who now lives in Glasgow with his three children, says he fell in love with the site after playing nine holes at the Machrihanish Golf Club, one of the world’s great links golf courses designed by Old Tom Morris. The fifth hole at Machrihanish Dunes touches the 16th at Machrihanish Golf Club. Keating says it was pouring down frigid rain when he walked off the course and immediately sought out the landowners of the adjacent property about selling. Since the land deal — a lease with option to buy — was signed with brothers Robin and James Barr, Keating keeps the Barrs updated on the progress and stops in to see them at least once a month.

Soon after the deal was signed, Keating hired a geomorphologist consultant to help prepare the proposal that would be submitted to SNH. Here Keating, the man who brought Apple Computer to Russia, showed his savvy. The consultant was the highly respected Jim Hansom, Ph.D., professor at

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Glasgow University and a member of the SNH board of directors. At least one SNH staff member studied under Hanson in grad school. Keating said his team worked quietly for six months before submitting the permit applications to SNH.

Keating's strategy worked, and SNH approved the plan after a series of revisions. Once the project was given a thumbs up, ecologist Carol Crawford was hired by Keating to oversee the project, coming on board in 2004. She was on site once a week during construction, which ran from June to December of 2007. Crawford was responsible for making sure construction took place within parameters of the permits while making judgments on changes that came up during work, often times rejecting proposed alterations. Grant says some of Crawford's changes were maddening, but he readily admits that "she was absolutely right" every time.

It was not just Grant who had to deal with the alterations made during the build. "I'd be happy to throw down the gauntlet to any of my peers and say, 'See if you'll go through this,'" Kidd says of the trials and tribulations.

There are also environmental concerns about the out-of-play areas. For decades, cattle grazed the land, allowing the rare species to thrive while keeping out the "rank grasses," says Stan Phillips of the Scottish National Heritage. Although cows have no place on a golf course, sheep are a different story. A herd of about 80 is on site until the opening of the course, and a few will be allowed to wander the grounds during the peak season. When play drops off in the fall, the entire herd will be brought back to graze until the spring, when the majority of golfers return.

"That's a massive benefit of the course and not at public expense," Phillips says.

Crawford says it's likely that large patches of the rare flowers that had been grazed by the cattle will now bloom for the first time in years.

SNH allowed the removal of tens of thousands of rabbits that were on site and responsible for much of the turf destruction.

Keating says he had no problem working within the environmental dictates and that



Sheep are a common sight. A few will be allowed to wander the grounds during the peak season.

it brings "a uniqueness" to the course. "The Way Golf Began," the motto for Machrihanish Dunes, was devised for marketing purposes, but Keating said it reflects the project accurately.

"That really is the essence of what we're doing," he says. "There's no other site available next to an Old Tom."

This site, like all the Old Toms, came to life with nature as the principal architect, and it will be nature that continues to alter it.

Kidd says he is happy with how the course has turned out and is looking forward to what the future — thanks to the wind, sheep and few remaining rabbits — will display to golfers.

"I hope they love it for what it is now," Kidd says. "And the passage of time will improve it."

Pioppi, a contributing editor to Golfdom, traveled to Machrihanish Dunes during its construction for this story.

PHOTO BY: ANTHONY PLOPPI

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